

AMENDED CLAIMS

1. (Currently amended) A gateway exchange node, comprising:  
an exchange area network (XAN) xswitch; and  
a wide area network (WAN) wavelength switch coupled to the XAN xswitch, wherein the xswitch is adapted to support service switching at a sub-wavelength granularity for a network element in an XAN.
2. (Original) The gateway exchange node of Claim 1, wherein the XAN xswitch supports Ethernet and synchronous optical network (SONET) switching.
3. (Original) The gateway exchange node of Claim 1, wherein the XAN xswitch comprises a packet switch that performs media access control (MAC) layering networking.
4. (Original) The gateway exchange node of Claim 1, wherein the WAN wavelength switch supports wavelength switching.
5. (Original) The gateway exchange node of Claim 4, wherein the WAN wavelength switch implements dense wavelength division multiplexing (DWDM).
6. (Original) The gateway exchange node of Claim 1, further comprising a digital crossconnect system (DCS) coupled to the XAN xswitch and the WAN wavelength switch.
7. (Original) The gateway exchange node of Claim 1, further comprising an internet protocol (IP) switch router coupled to the XAN xswitch and the WAN wavelength switch.
8. (Original) The gateway exchange node of Claim 1, further comprising a voice switch coupled to the XAN xswitch.
9. (Original) The gateway exchange node of Claim 1, further comprising a data switch coupled to the XAN xswitch.
10. (Original) The gateway exchange node of Claim 9, wherein the data switch is an Asynchronous Transfer Mode (ATM) switch.

11. (Original) The gateway exchange node of Claim 1, further comprising a multimedia access head end coupled to the XAN xswitch.
12. (Original) The gateway exchange node of Claim 1, further comprising a server coupled to the XAN xswitch.
13. (Original) The gateway exchange node of Claim 1, further comprising a local distribution node coupled to the XAN xswitch.
14. (Previously presented) The gateway exchange node of Claim 1, further comprising an integrated access device (IAD) coupled to the XAN xswitch.
15. (Original) The gateway exchange node of Claim 1, further comprising an intercity network coupled to the WAN wavelength switch.
16. (Currently amended) A network, comprising:
  - a first gateway exchange node having an exchange area network (XAN) xswitch
  - and a wide area network (WAN) wavelength switch; and
  - a network operations center (NOC) coupled to the gateway exchange node, wherein the xswitch is adapted to support service switching at a sub-wavelength granularity for a network element in an XAN.
17. (Original) The network of Claim 16, wherein the NOC is coupled to the gateway exchange node via an internet protocol (IP) switch router.
18. (Original) The network of Claim 16, further comprising a second gateway exchange node coupled to the first gateway exchange node via the WAN wavelength switch.
19. (Original) The network of Claim 16, further comprising a local distribution node coupled to the first gateway exchange node via the XAN xswitch.
20. (Currently amended) A gateway exchange node, comprising:
  - an exchange area network (XAN) xswitch;
  - a wide area network (WAN) wavelength switch;
  - a digital crossconnect system (DCS);
  - a data switch;

a voice switch; and

an internet protocol (IP) switch router, wherein the xswitch is adapted to support service switching at a sub-wavelength granularity for at least one of the DCS, the data switch and the voice switch in an XAN.

21. (Original) The gateway exchange node of Claim 20, wherein the XAN xswitch, WAN wavelength switch, DCS, data switch, voice switch, and IP switch router all include an operating system for networking.

22. (Original) The gateway exchange node of Claim 20, wherein the WAN wavelength switch, DCS, data switch, voice switch, and IP switch router all include a service delivery point.